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INTEGRATION OF INFORMATION FOR HOSPITAL RATE SETTING

VOLUME 16: THE SUMMARY AND RECOMMENDATIONS FROM
IMPROVING THE INFORMATION FOR HOSPITAL
RATE SETTING



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INTEGRATION OF INFORMATION FOR HOSPITAL RATE SETTING

VOLUME 16: THE SUMMARY AND RECOMMENDATIONS FROM IMPROVING
THE INFORMATION FOR HOSPITAL RATE SETTING

Final Report

This report was prepared under a contract between the Social Security Administration, HEW and the Harvard University Center for Community Health and Medical Care. The views and opinions expressed in the report are the contractor's and no endorsement by the Social Security Administration or HEW is intended or should be inferred. The project officer for this contract was William L. Damrosch, a staff member within the Division of Health Insurance Statistics, Office of Research and Statistics.

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SUMMARY AND RECOMMENDATIONS

If Congress mandates some form of hospital rate setting, it will undoubtedly reflect a conviction that this new form of regulation will provide a brake on rising health care costs. As with other legislation designed for the same purpose, such as control of unnecessary utilization through PSROs and control of duplicative facilities and services through the structures developed under the National Health Planning and Resources Development Act of 1974, the success of the endeavor will depend on the actual manner of its execution.

To implement a rate setting process that will contain the nation's rate of spending for hospital care, while at the same time compensating fairly for the particular kinds of services each institution provides, is an ambitious undertaking. In the final analysis, it will require that external reviewers have the ability to distinguish between excess projected costs and legitimate projected costs in each of the nation's 7,000 hospitals.

It was not within the scope of this project to consider the important questions of who should make the rules and conduct the reviews for such an enterprise, or to calculate its likely costs and benefits. More narrowly, our concern was with the kind of information infrastructure that would be required to support such rate setting decisions under the two alternative structures set forth in our contract:

Model 1 - Federal responsibility for rate setting, using intermediaries for data collection, processing, etc.

Model 2 - State responsibility for rate setting, under federal guidelines and monitoring.

Under either model, successful accomplishment of the dual objectives of cost containment and equity would appear to demand:

- identification of likely sources of significant excess costs before the rate setting process is developed, so that review efforts can concentrate on areas of high potential savings;
- identification of performance standards by which to determine whether

a hospital's spending is reasonable in relation to the scope, intensity and quality of the services it renders appropriate to its patients' needs;

- identification, collection, analysis and proper use of reliable information with which to distinguish between justifiable costs, according to the above criteria.

As we examined the experience of most of the largest state and Blue Cross rate setting programs, it became apparent that no program can as yet claim to have more than partially met any one of these conditions. Their efforts to do so, the obstacles they have encountered, the information support systems they settled for, and their attempts to improve them do, however, provide useful lessons to be heeded in the development of any new national rate setting program. Besides looking at this experience, our project also examined the major potential sources of information for hospital rate setting that are now available to the federal government.

The Nature of the Problem

Most state and Blue Cross rate setting programs were established hastily, in response to some local fiscal crisis occasioned by rising expenditures for hospital care. Pressures to put the new program in place within an unrealistic time frame meant insufficient opportunity to pinpoint likely sources of significant excess costs and gear the program accordingly. Lack of specific cost containment objectives also reflects the general inability of rate setting programs to reconcile the variety of different overall purposes that governors, state legislatures, hospitals, third party payers and other organizations usually expect them to serve. Often these are in direct conflict, e.g., fair share payment by all payers versus savings to governmental payers. Directives in enabling laws and contracts are broad - usually phrased in terms of setting rates that are "reasonably related to the efficient production of services of good quality."

Given the special nature of the hospital industry, performance standards by which to determine efficiency are not easily devised. In the first place, the nation's hospitals are extraordinarily diverse, ranging from rural cottage hospitals to multi-function medical centers. In addition

to obvious differences in size and function, they care for patients with illnesses of different degrees of severity and complexity, bring to bear on their behalf types of manpower, services and equipment of different degrees of sophistication, and deploy these resources with different degrees of skill and efficacy. All these factors make it exceedingly difficult to define standard products required for efficiency measurement. Secondly, geographic location, union status, and a host of other variable factors in their environment mean that different hospitals must pay different wages and prices for identical kinds of goods and services, further complicating the task external reviewers face in judging what costs are reasonable for producing their ill-defined products.

Thus, rate setters need to obtain, and to know how to use, a very broad range of detailed data about each hospital, describing not only what it spends, but what it does and how well it does it. In addition, they need information to allow them to account fairly for many other factors that directly impact hospitals' financial requirements, e.g., bad debts and free care, state and federal licensing and accreditation requirements, teaching programs, donated funds and services, etc.

Because review of each individual hospital's expenditures and revenues in relation to its performance is time consuming, rate setting programs that cover large numbers of hospitals usually seek to shortcut the process by grouping hospitals of similar characteristics and performing various kinds of comparative analyses. The validity of any such analyses, and thus the credibility of the system, depend on:

- the homogeneity of the hospitals selected for comparison groups, and
- the comparability of the data reported by each of the hospitals.

Thus, not only must rate setters have access to a broad range of data, but also that data must be reported completely, accurately and in accord with commonly defined elements and categories if useful comparisons are to be made.

Finally, if rate setting is considered as part of a wider regulatory effort designed to bring about a more rational economical distribution of health services to the populations of given regions, the rate reviewer needs to interdigitate his information and decision making with that of PSROs and planning agencies.

In short, under either a Model 1 (federal) or Model 2 (state) option, timely access to appropriate information of good quality is essential if hospital rates are to be set equitably in a manner that is administratively feasible and that promotes the achievement of overall health system objectives. In its absence, several patently undesirable consequences are predictable:

- the rate setting process will either be arbitrary, or be inordinately complex and expensive - in either case opening the administering agency to justifiable criticism from providers and the public, expressed in appeals, litigation and political actions;
- some hospitals will be overpaid for the care they give; others will be underpaid;
- the potential of rate setting to improve the cost effectiveness of health care delivery will be lost. Worse, in efforts to simplify the process, rate setters may come to rely on some grossly inadequate hospital performance measures just because the data to construct them are easily available. Such action could serve to freeze in or exacerbate the inadequacies of present fragmented approaches to delivering health services. This, in turn, would prevent the cost savings possible from increased overall system efficiency.

Unfortunately, the information presently available to inform hospital rate setting decisions and to monitor the results of rate setting programs more often than not fails to meet the criteria of appropriateness, quality and timely access. Although masses of data are collected from hospitals by rate setting bodies, third party payers and other organizations, often they are not the kinds that are actually needed, are not comparable among hospitals, or are not disclosed.

Even when the right kind of data of the right quality are available, insufficiently developed analytic methodologies and/or staff and budget constraints may create barriers to their proper use. Finally, duplicative

data collection and processing of hospital data by rate setters, third party payers, licensing and planning agencies wastes scarce resources.

The section 1533 provisions of the 1974 National Health Planning and Resources Development Act that call for development of a uniform accounting and a uniform reporting system for health providers under federal programs mark an important step forward in addressing problems of data comparability. However, unless such systems are in fact implemented and the information support system is strengthened along several other dimensions, federally mandated hospital rate setting programs that rely on hospital cost comparisons may be fraught with so many difficulties that they might well prove counterproductive to the goal of cost containment.

Our recommendations will set forth various elements of an information base suitable for undergirding a future national rate setting program. These fall into several categories: the spectrum of information required for hospital rate setting and for monitoring, and the actual and potential sources of this information; necessary moves to improve the quality and comparability of hospital cost data; and means to derive more effective and economical use of the data that will be collected, so as to serve the needs of policymakers and planning bodies as well as rate setters. Each group of recommendations will be preceded by summary observations based on the project's studies of existing rate setting programs and analysis of presently available information that could be used under either a Model 1 or Model 2 rate program.

I. THE SPECTRUM OF INFORMATION REQUIRED AND ITS SOURCES

Experience in Current Rate Setting Programs

The first and soundest principle governing the collection of information is that it be tailored to the purposes for which it is to be used. This principle has not, so far, been well adhered to in existing rate setting programs. Since at their outset most of the programs were able to define their cost containment and rate setting objectives only in very broad terms,

they could not, and did not, specify clearly the information they needed to carry out these objectives.

Instead, for the most part, prospective rates are calculated from the same kinds of financial and service volume data that hospitals had already been accustomed to report as the basis for their former cost based reimbursement. The major change is the requirement by most programs that hospitals submit standard budget schedules along with their standard reports on historical costs.

The Medicare Cost Report as Prototype. Each rate setting program designs its own package of annual cost/budget forms and schedules (ranging from 35 to 182 pages in length). However, they all derive generically from the 40 page annual report that the Medicare program requires from each of its 6800 participating hospitals as the basis for final settlement of its reimbursement. The voluminous data on the Medicare cost report (MCR) were selected to permit identification of any costs now allowable under the program's principles of reimbursement and to permit proper separation of each hospital's allowable costs that are properly chargeable to Medicare from those chargeable to other third party payers. The report was never intended to provide a basis for comparison of the performance of different participating hospitals. While adopting this MCR model for their annual cost/budget submissions enabled the new rate setting programs to accumulate large volumes of data on hospital expenditures, revenues and volumes of service from each hospital with relative ease, these data were not necessarily suited to their new objectives of setting rates in accord with the efficient production of services of good quality.

Changing Perceptions of Data Needs. The rate setting programs we studied are, however, highly innovative. From year to year they sharpen their cost containment objectives and experiment with new methods both for identifying and controlling out of line or unnecessary costs. To support their rapidly evolving objectives and methodologies they are now calling for the collection and use of many new kinds of data, and fundamental changes in the way their basic cost and budget data are reported.

For example, far more attention is being paid to the cost impact of hospital building programs and new high technology medical programs than in the early 1970's when most of the rate setting programs were organized. Several programs now require hospitals to submit long term program and capital facility plans and budgets. Concern with excess costs stemming from redundant facilities and services is also growing. Several rate setting bodies are beginning to work closely with planning and certificate of need agencies to develop common policies and strategies to contain costs stemming from such factors. Under the impetus of the new planning law, interest in sharing hospital cost, facility, and program data appears to be mounting rapidly in rate setting states.

However, the major efforts of rate setting are still focused on the search for measures of hospital efficiency. Up to now, the prime emphasis in comparative analysis has been directed toward detecting inappropriate hospital input costs in relation to outputs, e.g., nursing manhours per patient day, costs per lab test, etc. This required even greater levels of detail on labor and supply expenditures, uniformly reported, with direct expenses matched to services by cost center. Averaging of costs among grouped hospitals yielded surrogate norms for what constituted efficient practice. In resulting appeals and legal challenges, hospitals point out that such analyses fail to take account of differences in patient mix and quality of care among the hospitals. Several rate setting programs are now beginning to address the difficult issues surrounding better definition of output - recognizing the inadequacies of traditional aggregate measures such as "patient day," "test," "visit," etc.

This interest is manifested in a new search for cost data that will reflect the degree of complexity of resources that hospitals employ, matched to the degree of complexity of patients' needs. A few programs are now beginning to seek full descriptions of hospitals' special services, specialist manpower, and data on patient diagnoses and principal procedures, and to explore the relationships of costs to service intensity according to patients' medical care needs. To obtain data about hospital patients, they must go beyond their own reporting packages and seek reports from uniform

hospital discharge abstract systems or claim forms. Beginning in 1977, several programs will be obtaining regular reports from abstract systems. Many are experimenting with relative value scales to account for differences in the complexity of laboratory and radiologic procedures. Some are also trying to develop more sensitive statistical bases for allocating indirect costs.

As yet, however, only a few programs have developed methods for identifying hospitals with sufficiently similar characteristics to permit valid comparative analysis. Problems lie with the identification and weighting of key variables. Except for patient casemix, most data are obtainable either from the hospitals' costs and budget reports or from planning agencies, U.S. census reports, etc.

To complete the spectrum of data used by rate setting programs, summarized in Exhibit A, federal and state government reports on movements of wages and prices have from the outset been used by most rate setting programs to project inflationary increases in hospital input costs. As with hospital classification schemes, programs vary considerably in the sophistication of the methodologies they employ.

Up to now, rate setting bodies have studiously avoided any recognition of excess hospital costs that may stem from unnecessary admissions, excessive lengths of stay or other manifestations of poor patient management. Although some programs are trying to establish relationships with PSROs, no mechanisms for regular information exchange have yet been developed.

Rationale for Information Choices for a National Program

The types of information in current use for state and regional hospital rate setting will profoundly influence the nature of any future information base for a Model 1 or Model 2 national rate setting program. However, it would be unfortunate if present practices, which are still very much in flux, should become frozen into a pattern that might constrict future development.

EXHIBIT A: SOURCES OF INFORMATION MOST FREQUENTLY USED
OR PLANNED FOR USE BY FIVE STATE AND REGIONAL PROGRAMS*

<u>Data Sources</u>	<u>Types of Data or Analyses</u>
<u>HOSPITALS:</u>	
- annual cost/budget reports to rate body	{ - financial statements - cost/revenues - volumes of service utilization and input statistics - operating budget - capital budget - bed complements, by service - special services, patient care and ancillary - education programs - physician staff characteristics - special items for use in constructing hospital groups, economic indicators
- certificate of need applications	{ - financial feasibility, cost estimates, etc.
- special surveys	{ - hospital service area
<u>FEDERAL AND STATE AGENCIES:</u>	
- U.S. government statistical series	{ - population characteristics - movements of wages and prices
- state government agency reports	{ - population characteristics - movements of wages and prices
- planning agencies	{ - population and population-related resource data
- certificate of need agencies	{ - supporting data submitted to justify community need for facility and service changes
- licensing agencies, JCAH, AMA	{ - licensing and accreditation status
<u>MISCELLANEOUS SPECIAL SOURCES:</u>	
- surveys and reports from private sector	{ - construction costs, special supply and maintenance costs, etc.
- special studies	{ - other detailed data <u>ad hoc</u>

* Not all these information types are used in every program. Quality (process) measures such as JCAH accreditation are used minimally. Sources: project working papers on information systems in Arizona, Maryland, Massachusetts, New York and Washington.

Should Congress mandate rate setting, it will at the same time establish rate setting objectives. For our present purposes we will assume that it will look to rate setting as one of a set of regulatory tools by which to control out of line increases in overall health costs without either diminishing patients' access to needed care or the quality and effectiveness of such care.

If hospital rate setting is to become part of a broad armamentarium of regulation with which to implement broad health policies for the nation, ideally, those who set hospital rates and those who monitor the results of rate setting programs should be able to relate hospital cost information to the medical needs and demographic characteristics of both the population and of the patients served; to the nature, volume and timeliness of the services provided; to the efficiency of the service delivery; to the quality of the product; and ultimately to the consequences to patients and community in terms of health, well being, and total expenditures. This calls for relating many different types of data derived from disparate sources.

As we move towards a framework that demands better allocation of resources for health within some limits on total expenditures, the public will presumably expect the rate setting and reimbursement mechanisms to be accountable for ensuring that the best value is obtained for the health dollar spent. Certainly the rate structure should not inadvertently encourage unwarranted hospital admissions, unnecessary medical procedures or excessive lengths of stay. Nor should hospital rates subsidize duplications in the community's acute care health facilities and programs beyond what its population actually requires. Conversely, the rate structure may be expected to provide incentives to create new lower cost components of the system, such as ambulatory and home care services if these are what patients need. Finally, it is essential that rate setting factor in quality and outcome measures to the extent that they exist, and as they become further developed. Costs per case of open heart surgery will certainly be lower in hospitals with a 55 percent case fatality rate than in those with a 20 percent rate, since lengths of stay will be shorter! Presumably no one would want a rate mechanism to reward such economies.

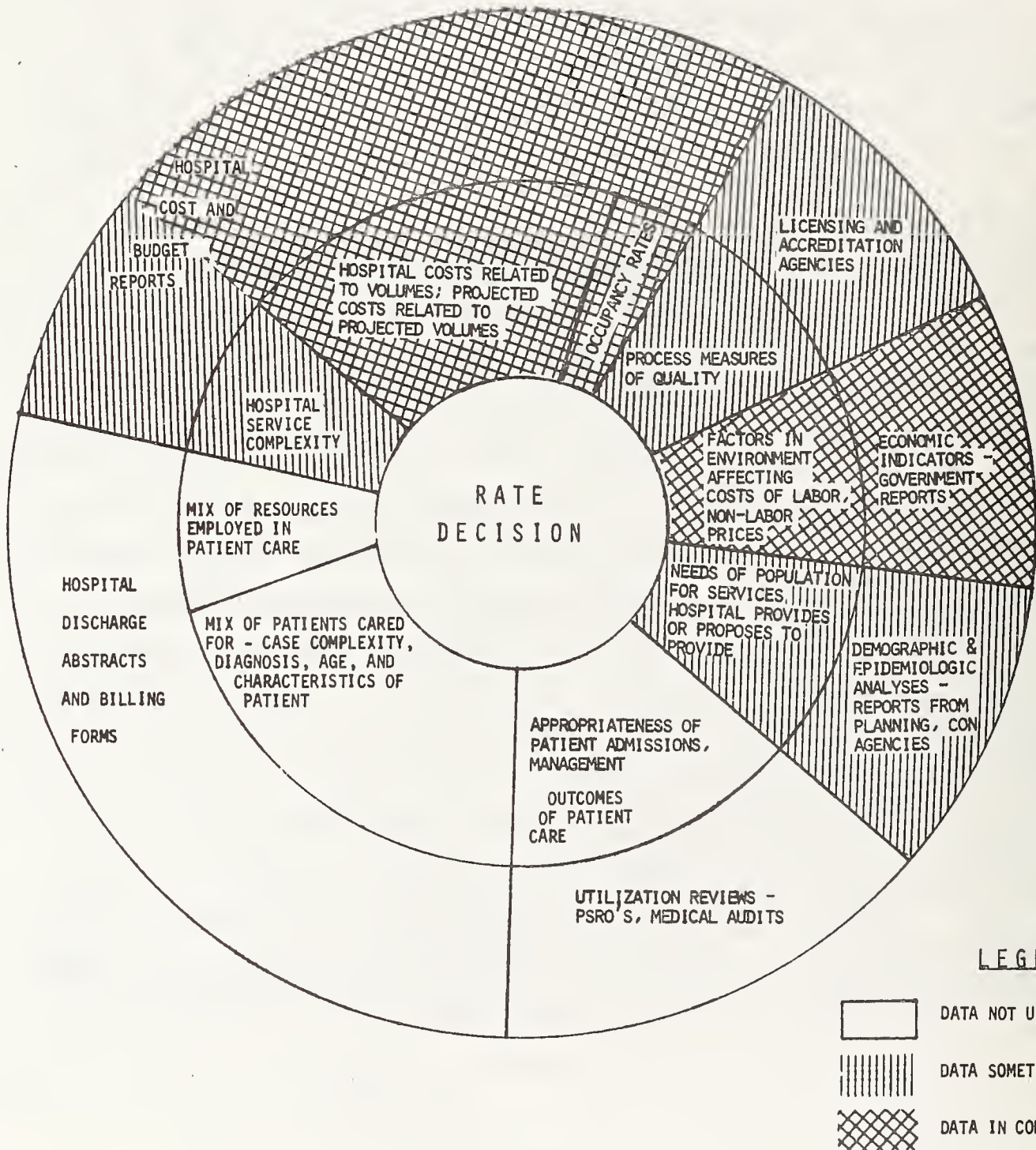
In short, an information bridge and coordinated policies between reimbursing, health planning, certificate of need, utilization review and quality monitoring organizations are essential if rates are to be used as a tool for encouraging broader types of change in the health care system that will lead to its greater overall efficiency and effectiveness.

Thus, although data on hospital costs and revenues are the starting point for rate setting, they must be supplemented by many other types of data - some collected by the program itself, some from a variety of other sources. As we have seen, many of these kinds of data are already being obtained and used by state and Blue Cross rate setting programs; others are not. However, almost all the needed information that is absent is already being collected by other organizations such as planning agencies and PSROs.

Chart 1 summarizes the range of information that might be appropriate to inform hospital rate decisions, and the extent to which current programs actually use them. The inner ring of the chart depicts the types of information; the outer ring indicates its sources. Shadings show the degree to which the information is presently used. It will be noted that almost all the needed information now absent is already being collected by other organizations.

The Medicare Cost Report Potential. Looking ahead to possible future rate setting responsibilities at the federal level, for Medicare and/or national health insurance, the Medicare cost report (MCR) is the only existing national source of cost data for individual hospitals. However, as already noted, it was not designed for hospital rate setting; as presently constituted it could not support a rate setting methodology requiring comparative analyses of hospitals. Some weaknesses lie in lack of timeliness and completeness, others stem from the fact that hospitals do not report their data in a standard fashion. However, were hospitals to report according to uniform definitions and reporting conventions, as we recommend in the next section, and if processing were to be speeded up to enable timely access and analysis, the MCR could be adapted to furnish the cost data component for Model 1 rate

CHART 1. RANGE AND SOURCES OF INFORMATION
FOR HOSPITAL RATE SETTING AND EXTENT OF PRESENT USE



setting.* Given the appropriate staff and computer resources, MCR cost data for each hospital could then be related to data on patient casemix, utilization, and service complexity, as well as to process measures of quality. All such related data are now available in existing Medicare program files, i.e., the Health Insurance Entitlement file, the Provider of Service file, the Utilization file. Some of them in a 20% sample are currently being linked for similar types of analyses to provide baseline reports, by area, to PSROs and HSAs.

Monitoring to Inform Policy. Whatever form of rate setting is mandated, it is essential to build in a capability for systematic monitoring to inform both policymakers and all the immediate actors concerned (government agencies, the public, hospitals, rate setting programs, third party payers, etc.) of changes taking place - whether desired or undesired - that appear to be associated with the new program and other regulatory measures. Again, hospital cost data would need to be related to trends in service complexity, patient casemix, utilization and quality of care for populations of given geographic areas.

Recent SSA sponsored evaluations of current rate setting programs encountered considerable difficulties in assembling these types of information, and could only do so at considerable expense.

The American Hospital Association National Hospital Panel Survey, recently expanded under an SSA contract, will soon enable a monitoring of the hospital economy at the state level. This will permit better tracing of the association of rate setting programs to changes in the financial status of hospitals and the intensity of their inputs, but will not measure changes over time in the nature and intensity of care delivered to patients with the same types of medical needs - a serious shortcoming if the object of rate

* Most of the items on the present MCR that might not be required for hospital rate setting would in any event have to be continued for purposes of Medicare cost finding for reimbursement, e.g., allocating certain types of costs among various payers. This type of detail would presumably not be needed under a universal national health insurance law.

setting programs is to encourage more efficient provision of services without diminution of their quality.

A more comprehensive monitoring system for the nation and its states could be obtained if MCRs were suitably modified and linked to other files. Routine abstraction and analysis of selected MCR items could be coordinated with analyses of utilization, service and quality. This could provide a valuable means for observing trends in hospital cost and utilization relationships in the Medicare enrollment population. Since it would not entail the collection of any new data, the only additional costs would be those required for analysis and dissemination of results. The same monitoring system could be used under a Model 2 rate setting program provided that each state's cost/budget package included all items of the MCR to be abstracted, and used standard definitions. This would constitute a uniform hospital cost data set (UHCDS).

The two most striking characteristics of the data base we have described are, first, the vastness of its scope and second, the negligible amount of data rate setters require over and above those which hospitals already furnish to third party payers, PSROs and other utilization reviewers, licensing and accreditation bodies, and certificate of need reviewers.

The range and types of information we have set forth would be equally necessary whether rates were to be established directly by the federal government under the Model 1 option, or by state governments under the Model 2 option. Under Model 1, however, the Secretary of Health, Education and Welfare would be responsible for specifying the full range of data to be used in rate setting, as he now does for Medicare reimbursement. Under Model 2, states would have latitude to specify their own data items over and above whatever minimum data requirements the Secretary might prescribe for purposes of monitoring and federal health program reimbursement, and in conformance with whatever uniform reporting system he might promulgate.

Recommendations for Types and Sources of Information

A. Information Needed for Rate Setting

1. The information systems and guidelines the federal government issues in regard to DHEW and state data collection and use under either Model 1 or 2 should be designed in the light of emerging coordinated health policy objectives for improving resource allocation for health. They should not be confined to the narrow objectives of hospital price and revenue control.
2. Those who set rates and those who monitor the effects of rate setting should be able to relate accurate and reliable data on individual or aggregated hospital dollar costs to:
 - scope of service the hospital(s) offer, including service complexity and physician specialist mix;
 - the burden of illness brought to the hospital(s) for care, e.g., diagnostic casemix, case complexity, patient age, income characteristics;
 - the nature, volumes and timeliness of services rendered;
 - prices the hospital(s) must pay for necessary labor and non-labor inputs;
 - the efficiency of the service delivery in terms of flexible staffing in relation to volume changes, internal management controls etc.;
 - the appropriateness of the patient care rendered in relation to patient needs and population needs;
 - the quality of care rendered;
 - duplications in facilities and services (especially high technology services) in hospital service areas or regions, and gaps in access;
 - the trends in per capita utilization and per capita expenditures for hospital services in the region, and their relation to total health care utilization and expenditures.
 - the outcomes to patients and populations in terms of health and well-being.

3. The particular data elements to be collected and analyzed should be selected in the light of specified cost containment and equity objectives. However, because the nature of the information perceived to be required for hospital rate setting and monitoring is changing rapidly, and is likely to continue to change in the future, the system should be designed to accommodate to such changes in a flexible manner.

B. Information for Monitoring

In order to monitor the overall effects of rate setting and related regulatory programs over time and in different parts of the nation, a specially constructed uniform hospital cost data set (UHCDS) should be abstracted from whatever annual cost/budget package is used for rate setting. When processed, it should be linked to patient data, hospital resource, and utilization files, and analyzed both in reference to populations of state and sub-state areas and in reference to populations enrolled in national health insurance programs.

Such analyses are essential to monitor progress towards goals of better cost effectiveness in the health care system, since they will show trends in national, state and local area expenditures related to utilization and resource use. As they are developed, relationships of these factors to indicators of health status and patient outcomes should also be analyzed.

The American Hospital Association's National Hospital Panel Survey already provides a means to monitor changes within the hospital industry itself.

C. Sources of the Information

1. Data for hospital rate setting and monitoring can for the most part be drawn from existing sources:

- The Medicare cost report is the only existing source of cost data for virtually all the nation's hospitals. Hospitals are accustomed to using it and must continue to do so in the future for purposes of Medicare reimbursement. Linked with a corresponding standard prospective budget, it could be adapted for rate setting purposes under the Model 1 option. However, were it to be used as a basis for comparative analysis, solutions would have to be found to present problems of data unreliability. The timeliness of its processing and analysis would have to be vastly improved;
- Were a national health insurance law also to be enacted with universal coverage and a single payer, the necessity for the present mass of detail on the Medicare cost reports should be reevaluated;
- Under a Model 2 rate setting program, or under waivers of a Model 1 program, states should have latitude to use their own cost/budget reports provided that they contain whatever standard items the Secretary of DHEW might prescribe for purposes of reimbursement for care of persons entitled to receive services under federal programs and data required for monitoring;
- Patient data should routinely be obtained from uniform hospital discharge abstract systems or claims files to allow rate setting decisions under either the Model 1 or Model 2 structure to take account of the relation of cost to differences in the burden of illness brought to different hospitals, and changes in the same hospital over time;
- Planning and certificate of need data should be obtained from appropriate agencies to aid the formulation of coordinated policies within which rate setting decisions should be made;

- Organizations such as PSROs and accrediting agencies responsible for decisions on the appropriateness and quality of services rendered to patients should share hospital performance profiles with rate setting bodies in order that rates take cognizance of differences in quality.

D. Improving Methodologies

1. To improve methodologies in preparation for a national rate setting program, further research and testing are needed in the following areas:

- improving economic projections for small geographic areas to make allowances in hospitals' rates that take proper account of inflation. This may call for larger sample sizes for Bureau of Labor Statistics wage and salary surveys, as well as for the identification of better proxy measures for hospital labor and supply inputs;
- achieving more homogeneity among the hospital groups used for comparative analyses. Development of a methodology that would permit inclusion of casemix and other patient variables should be encouraged;
- exploring further the complex relationship of cost to the nature, quality, intensity and appropriateness of services rendered to patients with given classes of medical needs or requirements for care;
- a major developmental effort is required to refine statistical measures of hospital activity that will permit development of realistic performance standards.

The task should be approached incrementally, first focusing on areas of largest cost impact, i.e., constructing better relative value scales for laboratory and radiology, and developing such scales for nursing;

- a similar effort is required to identify better measures for cost allocation.

II. MORE RELIABLE DATA THROUGH UNIFORM ACCOUNTING AND AUDIT

If external reviewers under either the Model 1 or Model 2 structure are to depend on comparative analysis of hospital performance as a basis for establishing rates, the data from each of the hospitals must be truly comparable. Otherwise, the exercise will either be meaningless or dangerous. Just as decisions based on too narrow a scope of data may be reflected in overpayment to some hospitals for the type and quality of care they render to patients, and in underpayments to others, so too with decisions based on unreliable data.

To achieve comparability requires that each of the hospitals must define the items to be reported and the reporting categories in the same way, and follow the same conventions for assigning costs and activities to the common categories. In addition, the required data must be reported both completely and accurately. These principles apply to all types of hospital data (uniform discharge abstract data, AHA Survey, etc.), but only hospital cost data will be discussed here.

Existing rate setting programs appear to vary considerably in the extent to which their reports yield data that meet standards of comparability, completeness and accuracy. Requiring hospitals to report on standard forms is only a first step. Sophisticated uniform accounting and reporting systems must provide a common language and a common means of communication; auditing must ensure that the staff in hospitals who record and report the data understand and abide by the prescribed conventions, and furnish correct figures.

Present Weaknesses in the Quality of Data Reported

Researchers and analysts who work with both the Medicare cost reports and the cost/budget reports used for rate setting find that hospitals usually report the dollars they spend and receive completely and well, but that they report the other half of the cost equations - their input and output statistics - quite unevenly.

Inconsistencies of definition are one major source of unreliability. For example, unless the instructions that accompany the forms are highly specific, reasonable people can and do differ their interpretations of what may constitute "major" versus "minor" equipment, "short term" versus "long term" loans, etc. The completeness and accuracy with which particular measures of activity are reported also leave much to be desired. Even the basic denominator of all inpatient cost comparisons, a hospital's bed complement, is not always reported consistently.

The most pervasive obstacle to valid inter-hospital comparisons, however, is the fact that hospitals must categorize their accounts in different ways for their own internal control purposes in order to ensure that their department heads can be accountable for the spending decisions they make. Since hospitals vary greatly in their organizational structures, operating policies and practices, as well as in their scope of services, their internal information systems naturally must reflect these differences. One hospital, for example, may maintain a separately organized blood bank. In another, blood bank activities may be assigned to the department responsible for laboratory operations. If rate setters are to make valid cost comparisons, differences such as these must be reconciled through accounts that report on common functional cost centers to which commonly agreed upon activities are always assigned. The problem becomes how to meet the information needs both of internal hospital managers for responsibility accounting and those of external reviewers for functional accounting. The most expeditious and least duplicative and least costly vehicle for accomplishing this purpose is a uniform reporting system backed by a uniform chart of accounts. Coding of the accounts on the chart permits information to be generated both according to responsibility and functional cost centers.*

* A chart of accounts is defined as a listing of account titles with numerical symbols designed for the compiling of financial data.

Uniform Accounting and Reporting

Almost all state and Blue Cross rate setting programs require hospitals to organize their data according to some prescribed standard chart of accounts for reporting purposes, and design their cost/budget forms and schedules accordingly. For the most part, they employ an edition of the American Hospital Association's chart that was developed over many years, primarily to support hospitals' needs for internal management controls. Although the 1976 AHA chart is linked to a newly developed uniform reporting system designed to meet the needs of external reviewers for functional accounting, it was not available to the rate setting programs organized earlier in the decade.

As a result, certain of the state programs that planned to rely heavily on interhospital comparisons adopted a new uniform chart of accounts and a linked uniform reporting system developed by the California Hospital Association in 1973. The system is now in place in Washington and California, and will soon be implemented in Arizona. The needs of both hospital managers and external reviewers are met through its ample coding system. Definitions of terms and categories are full and explicit, as are directions as to where to assign particular costs.

Transition to a New Uniform Reporting and Accounting System

The Congressional mandate to develop a uniform chart of accounts and a uniform reporting system for providers of health services in section 1533 does not include a requirement that these new systems be adopted. However, it may be assumed that they would be prescribed to support any new national rate setting program. The experience of the hospitals and hospital commissions in the states of California and Washington in making the transition to the new California accounting and reporting systems provides some important caveats to be heeded in any future nationwide transition. These are reflected in certain recommendations at the end of this section, presented in greater detail in the project's full report.

Many kinds of organizational, technical and communication problems were encountered. First, since most hospitals formerly used the AHA chart, their computers were programmed to its numbering system. Changeover to a new numbering system imposed new costs and severe work burdens. Second, many hospitals in both states had problems with compliance due to special reasons associated with their ownership and control. Government hospitals, by law, must follow other prescribed accounting systems; religious orders and for-profit chains often have their own systems that apply nationwide.

Third, a great many difficult technical problems had to be resolved, such as whether there should be a common reporting period (given the fact that hospitals often operate according to different fiscal years); choice of and number of accounts required to be reported by small hospitals, etc. Fourth, hospital personnel had to be instructed in the details of how to use the new systems, as did the accounting and computer firms that serve the hospitals.

After observing this experience, we conclude that if sufficient thought is not given to the preparation for transition to a new national uniform accounting and uniform reporting system for hospitals, difficulties in implementation could very well exacerbate rather than alleviate current problems of data unreliability.

Nevertheless, despite all such problems, if a national rate setting program becomes law, a single national uniform system of accounting and reporting would seem to be essential, assuming a rate setting method based on comparative performance. Under a Model 1 structure the need is obvious. Under a Model 2 structure, states might argue for local options in choice of their uniform system. Under some circumstances waivers might be appropriate, particularly for states that have already gone through the expense and tribulations of change. However, the hospitals in most states would have to endure the troubles of transition, no matter what uniform system their state programs decided to adopt. Furthermore, if federal guidelines required the reporting of the minimum cost data set we have recommended for program monitoring, these items, at least, would have to conform to defini-

tions that applied nationwide. Thus, there appear to be no advantages to be gained from multiple state accounting and reporting systems. If federal guidelines permit them, the advantages of nationwide comparable data would be considerably diminished, if not entirely sacrificed.

In short, a universal hospital accounting and reporting system is necessary to support a national program of rate setting under either Model 1 or 2. However, considerable resources must be committed to the processes of its design, pretesting and implementation if it is to achieve its intended purposes of improving the reliability of the data hospitals report.

Auditing

Many of the problems we have noted in connection with the completeness and accuracy with which hospital statistics are reported stem from inadequate resources for auditing. With present limited funds, attention is usually focused on the accuracy of the financial reporting and, for Medicare cost reports, on those statistics that figure importantly in cost finding calculations.

Most state rate setting programs are severely restricted in funds for audit compared to recognized need. Some do not even have the capacity for systematic desk reviews of the cost/budget reports their hospitals submit. Blue Cross programs appear to fare somewhat better. A few programs, where the third party payers and the rate setting program have joined forces to support a combined audit, claim to be fairly satisfied with the quality of the checks they are able to make on the data reported. However, this pooling of effort is only possible when a combined report form is used - a question discussed in the following section.

During the first few years of a new national rate setting program, very extensive auditing is called for, particularly if a new system of uniform accounting and uniform reporting is promulgated. If the data to be generated are to be of the quality to permit valid analysis by rate reviewers, frequent direct contacts with hospital personnel are essential to ensure

that transactions are being properly recorded at the source and that the principles and practices of the system are understood and followed.

Recommendations to Improve the Reliability of the Data Reported

A. Uniform Accounting and Uniform Reporting

1. Under either a Model 1 or Model 2 national rate setting structure, all hospitals should keep their books according to the same chart of accounts, and a uniform reporting system should be designed in conformity with this chart. Uniform reporting is meaningless without uniform accounting.

In order to promote the comparability of the reported data:

- the classification scheme and the coding system must be standard for all hospitals;
- definitions of functional activity centers, natural expense items and units of measure must be standard for all hospitals;
- all transactions must be reported according to standard conventions, and should be recorded as close to the time they are made as possible.

2. The accounting and reporting system should be designed to be useful both to hospital managers for internal control and to external bodies for comparative reviews.

An ample coding system is needed. The hospitals' records should identify transactions so that they can be reported on the bases of:

- responsibility (for internal management);
 - function (for inter-hospital comparisons by activity);
 - natural expense categories of salaries and supply items (for internal and external comparisons).
3. Definitions of data items already standardized in existing reporting systems should be employed. Where conflicts exist, definitions in the minimum data sets prescribed by the Secretary of DHEW should prevail.

4. Data should be reported in a modular format that permits hierarchical aggregation for special purpose reports.

Multiple users of the reports will have widely differing needs for level of detail about hospital statistics and costs. The reporting system should be ordered so that different levels of information can be produced in reports tailored to their particular needs. These should supplement each other, not duplicate. This calls for basic forms supplemented by special schedules, and requires plentiful codings on the original report documents.

5. The data system should be cost effective. It is counterproductive to spend dollars in data collection and processing to save pennies in hospital rate reviews. Similarly, it is counterproductive to forego dollars of possible savings because of a failure to provide the level of budget needed to design, test and carefully implement a good information system.

6. Hospital reports should include all internal data items needed to implement the particular rate setting and reimbursement program in effect, e.g.:

- if hospital grouping is employed, the reports should include all internal items required to assign the individual hospital to its appropriate group and to monitor the continued appropriateness of this placement over time;
- if an economic projection index is used, the internal data items in the reports should also conform precisely to any items selected for the construction of the index.

7. Revenues and expenses should be reported juxtaposed in each functional center. Matching revenues with expense in each activity center reveals the extent and nature of cross-subsidization and also the share of hospital financial requirements met by various classes of payers.

B. Design and Implementation of New Systems

1. A new uniform accounting and uniform reporting system should be developed with the guidance of a suitably staffed technical advisory committee which brings together the expertise of the major users and contributors of the data. This group should be independent of any parallel committee concerned with rate setting policy determination.

Examples of organizational membership include: rate setting programs, third party payers, hospital associations, the Hospital Financial Management Association.

The acceptability, timeliness and reliability of the reporting system will be increased to the extent that hospital representatives, in particular, have opportunities to provide input into detailed design and formatting, since hospital personnel must supply the data.

While recognizing the skills that can be brought to bear through contracts with accounting firms to design new systems, the needs of rate setters, hospitals and other users must be kept paramount. Final decision making authority must rest with the rate setting body.

2. The adoption of any new chart of accounts or reporting system should be approached in an experimental mode, building on evaluation and feedback.

Specifically, before adopting any new form it should be;

- reviewed by major users and providers of the data;
- pilot tested with a carefully drawn sample of hospitals and revised according to the results.

3. Three or four years should probably be allowed to implement a system that requires a new:

- chart of accounts;
- uniform reporting system;
- uniform budget.

There should be mutual tolerance by hospitals and rate setting bodies of the inevitable difficulties that will be encountered during this period.

4. Adequate funds must be allotted for training programs directed at hospital controllers, accountants and department heads.

Special training in how to use the new reporting system is essential to ensure accurate data entries. This requires:

- staffing that is adequate both in numbers and skills;
- development of manuals and programmed teaching aids.

5. In the first year of the system's implementation (and perhaps always for primary care hospitals) reporting of only the key elements comprising the framework of the data set should be required.

This will avoid data overload on all parties. More detail about each component can be phased in year by year as experience of need dictates.

However, the full report form, the desired end result, should be available to hospitals at the outset to facilitate the adjustment process. While the rate setting body should be able to require more detail about particular components from individual hospitals at any time, they must recognize that special data demands add to hospital costs.

6. An in-depth study should be conducted to evaluate differences in quality of the data now reported by hospitals in Washington and California related to the manner in which the new accounting and reporting systems were introduced and the data used. Since

the systems were virtually identical, conditions of a natural experiment were present. Analysis of results should guide plans for transition to a new national system.

C. Audit

1. Data reported from hospitals should be subject to complete external audit during the first three years of the program. Later, limited scope or sample audits may suffice, as with the IRS.

Inaccuracies are to be expected in any new system of reporting. It is important to correct them, as these first reports will become the historical base for all later trend analyses and exception reviews.

2. Audit of hospital statistics and of a hospital's internal reporting processes is fully as necessary as audit of its dollar income and expenditures.
3. There should be a single external audit to serve the needs of rate setters and all third party payers. A single audit saves money, time and effort.
4. The auditors' reports should themselves be subject to audit, and the results made public. Alternatively, only firms certified by the AICPA might be employed. (AICPA review teams conduct routine quality checks on such firms.)
5. Federal guidelines under either Model 1 or 2 should clearly specify the auditing functions and the frequency and character of audits.

SECTION III. ECONOMICAL DATA COLLECTION, ACCESS AND USE

The collection of data from and about hospitals is in itself a not inconsiderable charge against the health care dollar. Striving for more cost effective use of information resources is as important as striving for cost effectiveness in any other component of health spending. Some approaches include: reducing waste in the collection and management of hospital cost data; improving the ability of rate setters to obtain needed information from other agencies that is not presently forthcoming; improving their capabilities for analyzing the data they have; and finally, using such analyses more effectively to influence cost behavior in hospitals.

Duplicative Collection of Hospital Cost Data

In addition to the voluminous cost/budget packages of forms and schedules that hospitals are required to submit to existing rate setting programs, they must also furnish large portions of this same data to Medicare for its cost reports, Blue Cross plans for their cost reports, licensing agencies for their facility and services reports, and so forth. Much of the data are the same, but each external reviewer employs different forms and defines and categorizes the data in somewhat different ways. Furthermore, different cost reports may employ different units of measure that require the hospital to use different methods of recording its activities, such as counts of surgical procedures in one report versus operating room minutes in another.

Besides the increased clerical and computer costs required at the hospital level to satisfy these data demands, each of the various collecting agencies requires its own staff or staff time, for editing, auditing and processing the duplicative data it receives. Surprisingly, the amount of extra expense attached to such uncoordinated activities, projected nationwide, has not been calculated. It is undoubtedly very high, and constitutes a readily identifiable source of excess costs that could be reduced without affecting patient care.

Savings can be effected through common data collection and processing arrangements. In New York State, a single hospital financial report and a single hospital statistical report yield all the data routinely used for rate setting, Medicare reimbursement, Medicaid reimbursement, Blue Cross reimbursement, and licensing, as well as most of the information infrastructure for planning. One user organization, Blue Cross-Blue Shield of Greater New York, performs the clerical, auditing and computer functions for all other users on a cost sharing basis.

Under a Model 1 rate setting structure, if the Medicare cost report remains the principal vehicle for hospital cost data collection, at a minimum it should also serve the purposes of reimbursement for all patients covered by federal programs. The goal of report consolidation should also be pursued in federal guidelines for a Model 2 structure. Other hospital data users should be encouraged to join the effort. Often the addition of only a few new data items on one existing form can obviate the need for an entirely separate data collection.

Access by Rate Setters to Information From Other Agencies

As we saw in Section 1, in order to make equitable decisions based on the comparative performance of hospitals related to their costs, rate setters need access to information from secondary sources that delineates differences in hospitals' patient casemix, case complexity, service intensity, and quality of care. Much of this information is already collected in the minimum uniform hospital discharge data set that PSROs are required to obtain on all patients paid for through federal programs, and the type of aggregated reports that rate setters need must be transmitted to the Bureau of Quality Assurance. The question of sharing such reports among agencies within DHEW seems to be resolving itself. However, the authority of state rate setting bodies to obtain reports from PSROs is still unclear, possibly creating obstacles to access under a Model 2 structure.

Rate setting bodies have not yet, to our knowledge, made serious attempts to obtain information that systematically relates hospital costs to

quality of patient care. For example, the excess costs that may derive from iatrogenic illness are never explored.

The issues that surround disclosure of information about the quality of care in different services of different hospitals presently collected by medical audit teams of various review organizations are exceedingly complex. Insofar as the Freedom of Information Act and state public disclosure laws might require rate setting bodies to make public any reports they might receive on individual hospitals under Model 1 or Model 2 structures, strong incentives might be generated within some hospitals to keep unfavorable data from ever entering the original source record. This would defeat current efforts to improve performance. Yet in the absence of quality of care indicators, the rate setting process may inadvertently subsidize poor care and penalize good care. While there are no easy ways around this dilemma, rate setters should try to make common cause with leaders in the medical profession and in the hospital industry to devise some acceptable means of linking hospital rate setting with a quality monitoring system.

Constraints on Ability to Analyze Available Data

Even if the right types of data of adequate quality are collected in a timely fashion for rate decision making, the entire investment will pay off only to the extent that these data are properly analyzed and used. In most of the existing rate setting programs, the lion's share of attention, so far, has been devoted to the collection of the data rather than to planning for its analysis. As we saw in Section I, instead of deciding in advance what reports they wished to generate from their data systems in order to begin to control the largest sources of excess costs and to compare hospital performance, most existing programs reversed the process. Analyses were planned only after the hospitals' completed cost/budget package of schedules began to come back to the reviewers. Such absence of forethought, though explainable by the time pressures under which most programs began operations, has undoubtedly led to the expensive collection of many data items that so far have not been used.

When a new data system is created, it must be designed to accommodate flexibly the predictably changing needs of future rate setting analysts. Thus, the framework of any new uniform accounting and reporting system designed to support a national rate setting program should provide the capability to secure information from hospitals at different levels of detail in different years. Within this framework, however, economies could be effected and information overload avoided if, for any given year, the data to be routinely collected were confined to those which were going to be routinely analyzed. At the same time, the forms and schedules hospitals receive annually should to the extent possible lay out the kinds of detail that might be required in the future, even when the items are not presently required. Hospitals, using the uniform chart of accounts, could keep their books accordingly. Providing extra detail as needed, either ad hoc for more in-depth scrutiny during the rate setting process, or routinely in future collections, should then impose no special hardship or expense. The Washington State program has pioneered in this direction.

The kinds of professional personnel available to perform and interpret analyses of hospital performance ultimately determine the extent to which investment in data collection or processing can pay off. Exploring the complex relationships between hospitals' costs and their performance is a challenging and necessary endeavor, but one for which analytic methodologies are only beginning to be developed. State rate setting programs are handicapped by limited budgets and civil service system rules and regulations that severely limit their ability to attract research and analysis staff capable of pushing forward along these frontiers. Blue Cross rate setting programs do not labor under the same types of personnel system constraints, and can offer more realistic salaries. This may in part explain the innovative approaches developed by some of these programs, such as those in Western Pennsylvania and Rhode Island.

In some states, symbiotic relationships have developed between state government and Blue Cross, whereby the advantages of the state's legal authority to collect data and establish rates have been combined with the Blue Cross plan's flexibility in the kinds of research and analytic staff they

can employ. Massachusetts provides an example. Under a Model 1 rate setting structure, the federal government could take advantage of these possibilities through agreements with intermediaries. Guidelines for a Model 2 structure should permit state governments, also, to take advantage of such opportunities. In addition, federally funded in-service training programs and other means to upgrade the quality of data analysis in state programs could assist state programs in making the best use of whatever personnel they are able to obtain.

Using Comparative Analyses to Influence Actions Within Hospitals

If one overall purpose of rate setting is to effect desired changes in particular types of hospital behavior that lead to excess costs, valid analyses of hospital performance, properly used, could provide an important lever.

Armed with comparative analyses of patient care service costs derived from functional reporting systems, comparative casemix profiles related to these costs, documentation of departmental cross subsidization and similar reports that the rate setting body may provide, trustees could, if so motivated, give more informed direction to their institutions in areas of potential cost control. In particular, such externally produced comparative analyses could give both trustees and administrators a powerful tool to force priority decisionmaking within their medical staffs. Often they already know that this is necessary and desirable, but they rarely have the power to set such processes in motion. Rate setting bodies, especially if they have disclosure powers, can provide convenient scapegoats. However, the rate setters' ability to motivate hospital trustees to move towards cost containment rather than to adopt adversary positions depends on their own sensitivity to forces within the hospital environment and physician community that normally serve to block such moves.

Few existing rate setting programs can as yet produce the kinds of valid analyses necessary to accomplish such purposes. However, the emerging experience of western states using performance profiles produced from their new accounting and reporting systems, and the use of the patient casemix analyses now planned in the Maryland and New Jersey programs can be expected

to break new ground. In preparation for either a Model 1 or Model 2 national rate setting program, special efforts should be directed at learning effective ways in which to employ comparative analyses at the hospital decision making level.

Recommendations for More Economical Data Collection, Access and Use

A. Reducing Duplicative Data Collection and Processing

1. To minimize the expense associated with multiple reporting demands on hospitals for data that are to a large extent duplicative, the hospital cost/budget package(s) for hospital rate setting under the Model 1 or Model 2 structures should be designed to meet the data needs of multiple users.

These would include, at a minimum:

- the rate setting program itself;
- third party payers;
- licensing bodies;
- banks and bonding authorities;
- planning agencies;
- the public.

2. A single organization within stated geographic areas - states or regions - should be designated to collect, edit and process the data.

Under a Model 1 structure, the fiscal intermediaries would carry out such functions. Under a Model 2 structure, federal guidelines should also permit state governments to engage intermediaries to perform these functions.

3. Choice of intermediaries to perform these functions should be guided by the following criteria:

- cost effectiveness - whether or not a given processor is likely to perform efficiently and economically;

- operational feasibility - whether or not the organization has the immediate capability to do the work;
- acceptability of the processor to the users.

B. Improving Access to Needed Information

1. Sharing of information created from data collection supported by federal funds should be explicitly mandated in the law authorizing the establishment of a national rate setting program. Reports should be based on statistical aggregations that preserve privacy of individual patient records but which permit analysis at the individual hospital level.
2. In the absence of such a law, specific working agreements on information exchange should be developed among the regulatory agencies at both federal and state levels, modeled on the National Center for Health Statistics/Bureau of Health Planning and Resource Development work plan. Agencies that operate cooperative health statistics systems could serve as information brokers at the state level.
3. The question of how to include information on quality of care obtained from medical audits in the rate setting decision-making process poses difficult dilemmas. Agencies within DHEW responsible for quality assurance and reimbursement should jointly engage medical and hospital leadership in systematic attempts to find acceptable ways around them.

C. Improving the Cost Effectiveness of Analysis

1. Decisions on the number of data items to be processed should be guided by realistic estimates of the staff, budget and time available for making the analyses.
2. The cost of payroll and supplies attributable to each functional activity center should be analyzed separately prior to the allocation of the costs on non-revenue producing centers.

Analysis of direct costs is necessary if valid comparisons are to be made of the efficiency with which both patient care and administrative and support services are provided in different hospitals. Casemix and service intensity variables should be tied into such analyses.

3. Since under a Model 2 structure, state budget and civil service constraints may reduce the organizational capabilities of state rate setting bodies to plan and execute analyses of necessary sophistication, federal guidelines should enable states to enter into contractual arrangements with organizations equipped to supply needed personnel or services.

Other approaches to the problem include:

- technical assistance programs to upgrade the skills of state civil service staff;
- direct federal financial support for research positions in state rate setting bodies;
- interagency staff planning for analyses of specific cost problem areas, such as excessive lengths of stay, certificate of need applications, etc.

4. Under a Model 2 structure, the Social Security Administration should be responsible for disseminating to the state rate setting programs any new analytic methodologies that permit more refined measurement of comparative hospital cost performance. It should also provide regular opportunities for key staff of these programs to share experiences in their use of innovative methodologies.

D. Use of the Analyses to Change Hospital Behavior

1. Well presented comparative analyses may be used in efforts to influence hospital trustees and administrators to take actions that might contain excess costs, but several conditions must be met:

- the particular norms must be clearly specified, so that the hospital can recognize where its own performance is out of line;
- the analyses are brought to the attention of the particular individuals or class of individuals within the hospital who are responsible for the cost aberrancy.

However, where the source data from hospitals are not truly comparable and where a crude hospital grouping system yields comparison groups composed of unlike hospitals, such exercises only waste the time and resources of all parties concerned.

2. Public disclosure of valid comparative analyses can be a powerful motivator of change.
3. Studies should be conducted of ways in which information from external reviewers can be used most successfully with the hospital environment to modify the attitudes and behavior of the most influential decisionmakers - the physician staff.

IV. ACCESS TO HOSPITAL COST DATA BY POLICYMAKERS, OTHER REGULATORS AND HEALTH PROGRAM PLANNERS THROUGH A UNIFORM DATA SET

The savings that might be accomplished by rate setting programs and third party payers cooperating in joint data collection efforts, though sizable are probably minuscule compared to those that could be effected if policymakers, health program planners and all health regulatory agencies at federal and state levels of government had timely access to the information they need about hospital costs. Today's widespread concern for getting the best value for the health dollars spent has generated a corresponding demand for cost impact and cost benefit analyses to inform both the drafting of new legislation and the carrying out of activities under the new planning law. Yet very little timely data on hospital costs are now available from which to derive such analyses. In addition, the expertise with which to use hospital cost data, especially at the state level, is in short supply.

Providing a mechanism to meet such needs should be an essential element in planning an information system to support a national rate setting program. The minimum set of hospital cost data we recommend be abstracted from each hospital's annual cost/budget report could be organized and disseminated in a manner that would also serve these wider needs of health policymakers, at very little additional cost.

The enterprise would require:

- an orderly means for identifying the particular data items to constitute a minimum uniform hospital cost data set (UHCDS);
- a procedure for timely abstraction and processing of the items from hospitals' annual rate setting report submissions;
- routing of the data to agencies responsible for the analysis and dissemination of information;
- technical assistance programs for cost data users.

The principal costs entailed would be for analysis and dissemination of the information, and for technical assistance.

The basic minimum uniform hospital cost data set, designed to serve multiple users, would be spun off from the hospitals' annual cost/budget submissions for rate setting. No special problems should be encountered in obtaining standard items, if other recommendations from this project are followed. Under a Model 1 structure, all the items hospitals report would, in any event, be standard nationwide, as in the present Medicare cost report. However, comparability would be assured through the new uniform accounting and reporting system. Under a Model 2 structure, states would also provide the set of items required for federal program monitoring in standardized fashion.

The agency with prime interest in the quality and use of items abstracted for rate setting program monitoring, presumably the Social Security Administration, should be responsible for the supervision of their abstracting and processing. However, it would be unreasonable to expect SSA or any other operating agency to assume the burden of distributing UHCDS data to the other potential users. A solution would be to have the intermediaries

(under Model 2) abstract and process the items and send tapes both to SSA for its own purposes and to the National Center for Health Statistics for analysis and dissemination of information to other users.

The timeliness of the UHCDS data is much more important than its complete dollar/statistic accuracy. Thus, the abstracting by the intermediary or state agency should be done at the point immediately following receipt and desk audit of the hospitals' cost/budget packages, preceding full audit.

In the design of minimum data sets to serve the varied purposes of many users, questions surrounding the proper identification of the particular items to be included become crucial. The data priorities of health planners, quality assurance agencies, and non-governmental users might be quite different from those of SSA. The more closely the various potential users are involved in selecting the items to be included in the UHCDS, the more likely it is to accomplish their purposes. Thus, although SSA must have final say in the design, and might usefully impose a limit to the total number of items that it could feasibly be responsible for processing, a broad spectrum of users need to be systematically consulted. These should include staff from the several other DHEW bureaus and divisions that would require some or all of the data for policy analysis and program evaluation, staff from the major Congressional committees dealing with health affairs, representatives of the American Hospital Association, the Hospital Financial Management Association, Blue Cross Association and other national associations with defined interests in health care cost analysis. Representatives of state governments, regulatory and planning agencies and HSAs should also be invited to participate, as well as state rate setting programs under a Model 2 structure. According to policies set forth in DHEW's Health Statistics Plan, the process of identifying the data set would take place under the general leadership of the Health Data Policy Committee and the U.S. National Committee for Vital and Health Statistics.

Once the UHCDS is constructed and implemented, the National Center for Health Statistics should assume responsibility for making the data and/or

its analyses available to the various user agencies and organizations, either directly or through the Cooperative Health Statistics System, provided that it could be given the resources necessary to carry out such new responsibilities.

If users at the state and local levels are to derive the maximum benefit from the newly available cost data, however, a number of special technical assistance programs should be developed under the general leadership of the NCHS, directed at certificate of need agencies, PSROs, licensing agencies, HSAs, etc.

In the meantime, pending the development and implementation of a hospital cost data set, the current moves towards active data sharing among different regulatory and planning agencies at both state and federal levels should be encouraged in every possible way. Where state statistical centers are in existence, they should be helped to take a more active role in facilitating the dissemination of hospital cost data and assisting in the data's interpretation. While this resource is not yet available, working agreements between rate setting programs, certificate of need bodies and HSAs should promote an increasing appreciation of the various ways such data can be put to use in their joint efforts to improve the cost effectiveness of hospitals and other health services.

Recommendations on a Uniform Hospital Cost Data Set (UHCDS)

1. The purpose of a uniform hospital cost data set is to inform national health policy and to serve information needs of health regulatory agencies and health programs at both the national and state levels. Thus, representatives of the major potential users of the UHCDS at federal and state levels should have an important voice in its development. However, the Social Security Administration, if it is to administer the national rate setting program under Model 1, or to monitor rate setting programs under Model 2, must have the final authority for specifying the set.

2. Responsibility for the abstracting, processing and quality of the data should be vested in SSA. However, to promote timely generation of UHCDS data, abstracting and processing should be conducted at regional or state levels by SSA or state intermediaries. This should be done immediately after desk review of the full reports.
3. High priority should be assigned to abstracting and processing in order to promote timely access to the data.
4. The rate setting enabling law and subsequent federal guidelines should contain provisions promoting the dissemination and use of UHCDS data.
 - Tapes should be provided to SSA for its own uses, and to the National Center for Health Statistics for analysis and dissemination of information to the other users.
 - Where state statistical centers exist under the Cooperative Health Statistics System, they should receive UHCDS tapes.
5. Technical assistance programs should be developed under the general leadership of the National Center for Health Statistics designed to help state level users such as certificate of need agencies and HSAs to derive maximum benefit from the availability of the cost data.

Where state statistical centers are in operation, they should assume responsibility for promoting wider access to UHCDS data and analyses

6. As a long range goal, NCHS and local state statistical centers should develop the capability of demonstrating to state rate setting bodies (under Model 2) and health planners and others the relation of cost, utilization, and hospital resource data to population data so as to show how the health system serves the people, and at what cost.

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